TV Tracking #: 868 (Semi-Annual)

1. ☐ RECEIVED IN ENFORCEMENT: 01/30/2024 (Original Copy Received By Date)
08/06/2024 (Revised Copy Received By Date)

Tesoro Refining & Marketing Company LLC
Martinez Renewable Fuels Facility
150 Solano Way
Martinez, CA 94553

August 6, 2024

VIA EMAIL TO COMPLIANCE@BAAQMD.GOV

Mr. Jeffrey Gove, Director
Compliance and Enforcement Division
Bay Area Air Quality Management District
375 Beale Street, Suite 600
San Francisco, CA 94105

SUBJECT: **Revised Title V Semi-Annual Monitoring Report**
Martinez Renewable Fuels Facility (Plant ID B2758) and Amorco Terminal (Plant IDs B2759 and E1200)
Reporting Period: July 1 to December 31, 2023

Dear Mr. Gove:

Based on a review of S-1600, A-2000, and A-2002 Foul Water Stripper system (FWS) data, Tesoro Refining & Marketing Company LLC is resubmitting its Title V Semi-Annual Monitoring Report for the reporting period of July 1, 2023 to December 31, 2023 to include a potential deviation of Title V Permit Condition 27591(12) that occurred between November 1 and November 6, 2023. Attached is a revised Title V Semi-Annual Monitoring Report that contains the signature of the Facility's responsible official as required by Regulation 2-6-502, and by 40 CFR Part 70.6. If you have any questions, please contact me at (925) 323-9207 or CVLyon@marathonpetroleum.com.

Sincerely,

Connor Lyon
Environmental Specialist

Attachment

ecc: Anais Tournier, BAAQMD
Kevin Cordes, BAAQMD

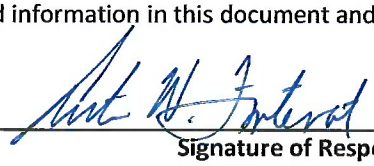
Marathon's Tesoro Martinez Refinery and Amorco Terminal
Reportable Compliance Activity (RCA): Inoperative Monitors
Reporting Period: 07/01/2023 to 12/31/2023

Inoperative Monitors as defined by BAAQMD Regulations 1-522 and 1-523
for the reporting period are summarized below:

Date	IMF ID#	Unit	Pollutant / Parameter
7/16/2023	08T64	OVDOAS Fenceline Monitor Open Path 2 (Southeast)	Data Flow
8/1/2023	08T87	FTIR Fenceline Monitor Open Path 2 (Southeast)	BTEX, SO_2
8/18/2023	08U17	FTIR Fenceline Monitor Open Path 1 (East)	1,3-Butadiene, Hexane, Ammonia
8/22/2023	08U21	Waterfront GLM (Station IDs 2251, 2351)	SO_2, H_2S
8/26/2023	08U38	FTIR Fenceline Monitor Open Path 2 (Southeast)	BTEX, SO_2
9/30/2023	08V17	Foul Water Stripper Flowmeter	Vapor Flow
11/10/2023	08V93	DCU Flare	Btu Analyzer

Certification Statement

I certify under penalty of law that based on the information and belief formed after reasonable inquiry, the statements and information in this document and in all attachments and other materials are true, accurate and complete.



Signature of Responsible Official

1/30/24

Date

Austin W. Fontenot, General Manager

Name and Title

Marathon's Tesoro Martinez Refinery and Amorco Terminal
Reportable Compliance Activity (RCA): Excess Emissions or Excursions
Reporting Period: 07/01/2023 to 12/31/2023

Inoperative Monitors as defined by BAAQMD Regulations 1-522.7 and 1-523.3
for the reporting period are summarized below:

Date	IMF ID#	Unit	Pollutant / Parameter
7/18/2023	08T76	F78 CO CEMS	CO
10/7/2023	08V40	West Air Flare	H_2S
10/11/2023	08V43	F78 NO_x CEMS	NO_x
10/29/2023	08V66 (Breakdown) 08V74 (Excess Emissions)	F78 NO_x CEMS	NO_x

Certification Statement

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Signature of Responsible Official

1/30/24

Date

Austin W. Fontenot, General Manager

Name and Title

Marathon's Tesoro Martinez Refinery and Amorco Terminal
Source Tests and Audits
Reporting Period: 07/01/2023 to 12/31/2023

The following is a list of the sources that were operated during the reporting period in which source tests and cylinder gas audits were scheduled as required. Sources not listed were not included during the reporting period.

Source ID	Source Description
S-952	No. 1 Gas Plant Engine M1
S-954	No. 1 Gas Plant Engine M3
S-1525	Non Retail Service Station
S-1517	Coker Flare
S-854	East Air Flare
S-1012	West Air Flare
S-992	Emergency Flare
S-933	F33 Hydrocracker Reactor Heater
S-934	F34 Hydrocracker Stabilizer Reboiler
S-937	F37 Hydrogen Plant Heater
S-973	F55 No. 3 HDS Recycle Gas Heater
S-1511	F78 Hot Oil Heater
S-1526	No. 5 Gas Plant 100-lb Fuel Gas Mix Pot

Certification Statement

I certify under penalty of law that based on the information and belief formed after reasonable inquiry, the statements and information in this document and in all attachments and other materials are true, accurate and complete.

Signature of Responsible Official

1/30/24
Date

Austin W. Fontenot, General Manager
Name and Title

BAAQMD Title V Permit
Semi-Annual Deviation Summary

JULY - DECEMBER 2023

B2758 / B2759 / E1200 - Tesoro Martinez Renewable Fuel Facility and Amorco Terminal

Facility Address:	Mailing Address:
150 Solano Way	150 Solano Way
City: Martinez State: CA Zip: 94553	City: Martinez State: CA Zip: 94553

Contact:	Title:	Phone:
Lucina Lopez	Advanced Environmental Engineer	(925) 372-3094

Application Regulation / Permit Condition / Other:
BAAQMD Permit Condition 23129, Part 12.b

Date Event Started:	Date Event Stopped:	Source (S#):	Abatement Device (A#):	Emission Point (E#):
7/18/2023	7/21/2023	S-1511		

Event Description:
CO emissions from the Hot Oil Heater F-78 (S-1511) exceeded the limit of 50 ppmvd (corrected to 3% O2, 3-hr average) from 21:00 on 7/18/2023 to 0:00 on 7/19/2023 and from 18:00 to 19:00 on 7/21/2023. CO emissions peaked at 63 ppmvd at 21:00 on 7/18/2023 and 58 ppmvd at 18:00 on 7/21/2023, both 3-hour averages, corrected to 3% O2.

Probable Cause:
On 7/18/2023, the No. 3 HDO unit (3HDO) was shutdown to allow operations to isolate a leak in the unit. The 3HDO shutdown resulted in a shutown of Pre-Treatment Unit (PTU). The PTU is a major user of hot oil from F78. Consequently, the F78 firing rate was reduced, which lowered the temperature in the heater, increasing the CO. During the 3HDO shutdown, a compresor in the Isomerization unit (ISOM) tripped, shutting down the ISOM unit. The ISOM is also a major user of hot oil from F78. The F78 firing rate was reduced, which lowered the temperature in the heater, increasing CO.

Corrective Action or Preventative Steps Taken:
Corrective action included lowering excess oxygen (to raise firebox temperature) and increasing the firing rate when the 3HDO and ISOM units were restarted.

Application Regulation / Permit Condition / Other:
BAAQMD Rule 11-10-401.1

Date Event Started:	Date Event Stopped:			
9/23/2023	9/25/2023	Source (S#): S-980	Abatement Device (A#):	Emission Point (E#):

Event Description:
A sample of the cooling water return line at the Hydrocracker Cooling Water Tower (S980) was taken on 9/6/2023. Tesoro received the analytical report from the 3rd-party lab on 9/19/2023 which indicated an alleged hydrocarbon leak above the action level. Rule 11-10-401.1 requires notification of alleged leaks to BAAQMD within 72 hours of leak discovery. The BAAQMD was notified of the alleged leak on 9/25/2023.

Probable Cause:
An incorrect due date for notification of the alleged leak was entered into the tracking calendar.

Corrective Action or Preventative Steps Taken:
A calendar is used to keep track of environmental report due dates. Tesoro is more cognizant of the timeline for reporting and enter a correct due date into the report tracking calendar.

Application Regulation / Permit Condition / Other:
BAAQMD Rule 11-10-401.1

Date Event Started:	Date Event Stopped:			
9/25/2023	9/26/2023	Source (S#): S-976	Abatement Device (A#):	Emission Point (E#):

Event Description:
A sample of the cooling water return line at the No. Gas Plant Cooling Water Tower (S976) was taken on 9/13/2023. Tesoro received the analytical report from the 3rd-party lab on 9/22/2023 which indicated an alleged hydrocarbon leak above the action level. Rule 11-10-401.1 requires notification of alleged leaks to BAAQMD within 72 hours of leak discovery. The BAAQMD was notified of the alleged leak on 9/26/2023.

Probable Cause:
Tesoro notified the BAAQMD late as a result of excluding the weekend from the 72-hour notification time.

Corrective Action or Preventative Steps Taken:
Tesoro is more cognizant of the timeline for reporting and exclusion of weekend hours in determining notification due dates.

Application Regulation / Permit Condition / Other:
BAAQMD Permit Condition 24324, Part 2

Date Event Started:	Date Event Stopped:			
10/7/2023	10/7/2023	Source (S#): S-1012	Abatement Device (A#):	Emission Point (E#):

Event Description:
The West Air Flare (S-1012) CEMS indicated excess H2S (3-hour average) from approximately 8:00 AM to 12:00 PM on 10/7/2023. The West Air Flare was the primary flare.

Probable Cause:
A dimethyl disulfide (DMDS) vessel at the No. 1 HDO unit was being filled at the time of the indicated excess H2S. The DMDS vessel released H2S into the vapor system. The No. 5 Gas Plant H2S adsorbers did not scrub the H2S from the vapor system as both adsorbers were down for maintenance.

Corrective Action or Preventative Steps Taken:
The DMDS vessel filling procedure was updated to ensure the No. 5 Gas Plant adsorbers are online during filling.

Application Regulation / Permit Condition / Other:
BAAQMD Permit Condition 23129, Part 12.a

Date Event Started:	Date Event Stopped:			
10/11/2023	10/11/2023	Source (S#): S-1511	Abatement Device (A#):	Emission Point (E#):

Event Description:
NOx emissions from the Hot Oil Heater F-78 (S-1511) exceeded the limit of 50 ppmvd (corrected to 3% O2, 3-hr average) from 10 AM to 1 PM on 10/11/2023. F78 was in the process of starting up.

Probable Cause:
F-78 NOx began increasing at approximately 0:00 on 10/11/2023. NH3 flow to the vaporizer was increased to reduce the NOx. By approximately 8:00 AM, the vaporizer outlet temperature dropped indicating the vaporizer had flooded. NH3 flow to the vaporizer was reduced to allow it to recover. This resulted in the excess NOx.

Corrective Action or Preventative Steps Taken:
NH3 flow was increased to reduce NOx emissions.

Application Regulation / Permit Condition / Other:
BAAQMD Regulation 2 Rule 1 Sections 301 and 302

Date Event Started:	Date Event Stopped:			
6/23/2023	9/28/2023	Source (S#): NA	Abatement Device (A#):	Emission Point (E#):

Event Description:
The BAAQMD issued an NOV (No. A61955) for allegedly failing to obtain an Authority to Construct and a Permit to Operate prior to operating a temporary rental air compressor driven by a diesel engine. The diesel engine is registered with the CARB PERP program (PERP Registration No. 186413).

Probable Cause:
The BAAQMD determined that the temporary rental air compressor driven by the diesel engine functioned as an integral part of a stationary source and thus the PERP registration was invalidated.

Corrective Action or Preventative Steps Taken:
The BAAQMD PERP policy "Use of PERP Equipment at Stationary Sources"dated February 19, 2020 was discussed with the BAAQMD Compliance and Enforcement division.

Application Regulation / Permit Condition / Other:
BAAQMD Regulation 12 Rule 15 Section 403

Date Event Started:	Date Event Stopped:			
10/19/2023	Ongoing	Source (S#): NA	Abatement Device (A#):	Emission Point (E#):

Event Description:
The BAAQMD issued an NOV (No. A61956) for allegedly failing to obtain an approvable fenceline air monitoring plan (AMP).

Probable Cause:
The BAAQMD determined that the AMP submitted was not approvable since it did not adequately address the notice of deficiency.

Corrective Action or Preventative Steps Taken:
Martinez Renewable Fuels is working with BAAQMD to adequately address the notice of deficiency.

Application Regulation / Permit Condition / Other:
BAAQMD Permit Condition 23129, Part 12

Date Event Started:	Date Event Stopped:			
10/29/2023	10/30/2023	Source (S#): S-1511	Abatement Device (A#):	Emission Point (E#):

Event Description:
On 10/30/2023, Tesoro requested breakdown coverage for NOx emissions from the Hot Oil Heater F-78 (S-1511) in excess of 7 ppmvd (corrected to 3% O2, 3-hr average) from 11:00 to 17:00 on 10/29/2023 and from 12:00 to 13:00 on 10/30/2023. On 11/14/2023, Tesoro requested the breakdown coverage be rescinded as the high NOx emissions did not exceed the 50 ppmvd allowed during shutdown, startup and malfunction periods.

Probable Cause:
Electric heaters F74 and F75 vaporize ammonia as part of the Hot Oil Heater F-78 SCR system. On 10/29/2023, F-78 emitted high NOx emissions as a result of the SCR electric heater F-75 tripping off on high sheath temperature. SCR electric heater F-74 was turned on; however, the heater was not able to maintain the temperature required to vaporize the ammonia. Permit Condition 23129, Part 12a, limits NOx emissions to 50 ppmvd (3-hour average, corrected to 3% O2) during malfunction periods, not exceeding 144 hours of startup, shutdown and malfunctions in any consecutive 12-month period. NOx emissions did not exceed 50 ppmvd. The period of high NOx emissions from F-78 are covered by the 144 hours.

Corrective Action or Preventative Steps Taken:
F-75 was restarted and ran in parallel with F-74 to return the vaporizer inlet temperature to the point where NH3 flow could be restarted. Once the vaporizer was stable, F-74 was shutdown.

Application Regulation / Permit Condition / Other:
Condition 27591 (12) (BAAQMD Reg 2-2-208)

Date Event Started:	Date Event Stopped:			
11/1/2023	11/6/2023	Source (S#): S-1600	Abatement Device (A#): A-2000	Emission Point (E#): N/A

Event Description:
Between November 1 and November 6, 2023, the foul water stripper (FWS) thermal oxidizer (TO) sulfur dioxide (SO2) CEMS data logger measured SO2 concentrations at the maximum range of the analyzer which was 100 ppm. The CEMS measurements were “pegged” at 100 ppm intermittently for a total of 29 hours over the 5 day duration. This updated report reflects these pegged times as deviations rather than short periods of downtime as originally determined.

Probable Cause:
The cause of the elevated SO2 was determined to be spent adsorbent in the lead adsorber vessel V-41 (A-2002).

Corrective Action or Preventative Steps Taken:
Tesoro isolated V-41 and changed out the media. Tesoro also replaced the analyzer with a 0 – 1000 ppm dual range analyzer in July 2024 and established an adsorber changeout frequency of 90 days based on hydrogen sulfide (H2S) heat and material balances rather than relying solely on H2S sample data collected from the adsorbers.

Application Regulation / Permit Condition / Other:
BAAQMD Regulation 6 Rule 1 Section 301

Date Event Started:	Date Event Stopped:			
11/13/2023	11/13/2023	Source (S#):	Abatement Device (A#): A-2000	Emission Point (E#):

Event Description:
The BAAQMD issued NOV No. A61957 for smoke the district observed eminating from the Foul Water Stripper Thermal Oxidizer (A-2000) allegedly exceeding No.1 on the Ringlemann chart more than 3 minutes in an hour.

Probable Cause:
The Foul Water Stripper (S-1600) tripped offline due to high temperatures in the thermal oxidizer stack (A-2000). The upset resulted in smoke from the thermal oxidizer.

Corrective Action or Preventative Steps Taken:
Operators restarted the Foul Water Stripper.

Application Regulation / Permit Condition / Other:
BAAQMD Regulation 1 Section 522.4

Date Event Started:	Date Event Stopped:			
2/10/2023	2/14/2023	Source (S#): S-934	Abatement Device (A#):	Emission Point (E#):

Event Description:
The BAAQMD issued an NOV (No. A63155) for allegedly late reporting of an inoperative monitor (RCA 08Q99). The inopertive monitor was the O2 analyzer on the Hydrcracker Stabilizer Reboiler F-34 (S-934).

Probable Cause:
The O2 analyzer failed the daily span calibration at 6:00 AM on 2/10/2023. However, the failed calibration did not trigger the CEMS trouble alarm which is used to track analyzer downtime. The failed calibration was initially reported via RCA 08Q85 submitted on 2/16/2023. BAAQMD inspector requested that the O2 analyzer failed calibration be submitted separately, which was completed on 2/22/2023.

Corrective Action or Preventative Steps Taken:
The Span Failure status was added to the CEMS trouble status alarm to monitor failed calibrations.

Certification Statement:

I certify under penalty of law that based on the information and belief formed after reasonable inquiry, the statements and

Signature of Responsible Official	Nicole T. Birchall For Donald C. Staats Print Name	Environmental, Safety, and Security Manager; for the General Manager Title	8/6/2024 Date